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(FILE 'HOME' ENTERED AT 16:38:46 ON 07 MAY 2002)

FILE 'MEDLINE, CAPLUS, BIOSIS, SCISEARCH' ENTERED AT 16:38:55 ON 07 MAY 2002

L1 7762 S ADENOVIR?(6A)(3 OR 7 OR 16 OR 21 OR 51 OR 11 OR 14 OR 34 OR 3

L2 2237 S FIBER(W)PROTEIN

L3 128 S L1 AND L2

L4 130737 S SMOOTH(W)MUSCLE(W)CELL OR SMC

L5 4 S L3 AND L4

L6 4 DUP REM L5 (0 DUPLICATES REMOVED)

=> d bib ab 1-4 l6

L6 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2002 ACS

AN 2001:50835 CAPLUS

DN 134:126789

TI Infection with chimeric adenoviruses of cells negative for the adenovirus serotype 5 coxsackie adenovirus receptor (CAR)

IN Havenga, Menzo; Vogels, Ronald

PA Introgene B.V., Neth.

SO PCT Int. Appl., 82 pp.
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001004334	A2	20010118	WO 2000-NL481	20000707
	WO 2001004334	A3	20010705		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	EP 1067188	A1	20010110	EP 1999-202234	19990708
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	EP 1196594	A2	20020417	EP 2000-946537	20000707
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
PRAI	US 1999-142557P	P	19990707		
	EP 1999-202234	A	19990708		
	WO 2000-NL481	W	20000707		

AB The invention discloses a method for delivering a nucleic acid of interest to a host cell by means of a gene delivery vehicle based on adenoviral material. One of the problems assocd. with the development of effective gene therapy protocols for the treatment of disease is the limitation of the current vectors to effectively transduce cells in vivo. This problem is overcome with chimeric adenoviruses comprising capsids derived from adenovirus 5 of which at least part of the adenovirus 5 **fiber protein** is replaced by a **fiber protein** from a

different adenovirus serotype. The gene delivery vehicle delivers a nucleic acid to the host cell by assocg. with a binding site and/or a receptor present on CAR-neg. cells, said binding site and/or receptor being a binding site and/or a receptor for adenovirus subgroups D and/or F. For this purpose, two or three plasmids, which together contain the complete adenovirus serotype 5 genome, were constructed. From a plasmid the DNA encoding the adenovirus serotype 5 **fiber protein** is essentially removed and replaced by linker DNA sequences which facilitate easy cloning. This plasmid subsequently serves as template for the insertion of DNA encoding the **fiber protein** derived from different adenovirus serotypes. At the former E1 location in the genome of adenovirus serotype 5, any gene of interest can be cloned. A single transfection procedure of the two or three plasmids together result in the formation of a recombinant chimeric adenovirus. The invention also describes the construction and use of plasmids consisting of distinct parts of adenovirus serotype 5 in which the gene encoding for **fiber protein** has been replaced with DNA derived from alternative human or animal serotypes.

L6 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2002 ACS
AN 2001:28651 CAPLUS
DN 134:111233
TI Infection with chimeric adenoviruses of cells negative for the adenovirus serotype 5 coxsackie adenovirus receptor (CAR)
IN Havenga, Menzo; Vogels, Ronald
PA Introgene B.V., Neth.
SO Eur. Pat. Appl., 95 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI EP 1067188	A1	20010110	EP 1999-202234	19990708
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
WO 2001004334	A2	20010118	WO 2000-NL481	20000707
WO 2001004334	A3	20010705		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1196594	A2	20020417	EP 2000-946537	20000707
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				

PRAI US 1999-142557P P 19990707
EP 1999-202234 A 19990708
WO 2000-NL481 W 20000707

AB The invention discloses a method for delivering a nucleic acid of interest to a host cell by means of a gene delivery vehicle based on adenoviral material. One of the problems assocd. with the development of effective gene therapy protocols for the treatment of disease is the limitation of

the current vectors to effectively transduce cells in vivo. This problem is overcome with chimeric adenoviruses comprising capsids derived from adenovirus 5 of which at least part of the adenovirus 5 **fiber protein** is replaced by a **fiber protein** from a different adenovirus serotype. The gene delivery vehicle delivers a nucleic acid to the host cell by assocg. with a binding site and/or a receptor present on CAR-neg. cells, said binding site and/or receptor being a binding site and/or a receptor for adenovirus subgroups D and/or F. For this purpose, two or three plasmids, which together contain the complete adenovirus serotype 5 genome, were constructed. From a plasmid the DNA encoding the adenovirus serotype 5 **fiber protein** is essentially removed and replaced by linker DNA sequences which facilitate easy cloning. This plasmid subsequently serves as template for the insertion of DNA encoding the **fiber protein** derived from different adenovirus serotypes. At the former E1 location in the genome of adenovirus serotype 5, any gene of interest can be cloned. A single transfection procedure of the two or three plasmids together result in the formation of a recombinant chimeric adenovirus. The invention also describes the construction and use of plasmids consisting of distinct parts of adenovirus serotype 5 in which the gene encoding for **fiber protein** has been replaced with DNA derived from alternative human or animal serotypes.

RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2002 ACS
AN 2000:368622 CAPLUS
DN 133:27392
TI Chimeric adenoviral vectors specific for gene transfer to **smooth muscle cells**, and/or endothelial cells
IN Havenga, Menzo Jans Emco; Bout, Abraham; Vogels, Ronald
PA Introgene B.V., Neth.
SO PCT Int. Appl., 91 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000031285	A1	20000602	WO 1999-NL717	19991122
	W: AM, AZ, BA, BB, BG, BR, BY, CA, CN, CR, CU, CZ, DM, GD, GE, GH, GM, HR, HU, ID, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, MA, MD, MG, MN, MW, PL, RU, SD, SG, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	NO 9905697	A	20000522	NO 1999-5697	19991119
	ZA 9907213	A	20000522	ZA 1999-7213	19991119
	EP 1020529	A2	20000719	EP 1999-203878	19991119
	EP 1020529	A3	20000816		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	AU 9959600	A1	20000525	AU 1999-59600	19991122
	CA 2318492	AA	20000602	CA 1999-2318492	19991122
	JP 2000157289	A2	20000613	JP 1999-332033	19991122
PRAI	EP 1998-203921	A	19981120		
	WO 1999-NL717	W	19991122		

AB The invention provides chimeric adenoviral vectors with tissue tropism of

smooth muscle cells, and/or endothelial cells (but not of liver cells) used for gene transfer in gene therapy. The chimeric adenoviral vectors is constructed by switching the functional part (**fiber protein** subunit) of adenoviral capsid protein in adenovirus type 5 vector to that of a subgroup B **adenovirus**, preferably **adenovirus 16** (Ad16). The biodistribution of these chimeric vector after i.v. tail vein injection of rats and and their display differences in the endothelial and **smooth muscle cell** transduction are detd. The infection efficiency of Ad5 vector to **smooth muscle cells**, and/or endothelial cells can be increased significantly by changing the fiber subunit (esp. shaft and knob parts) of capsid protein to that of Ad16. In this way, the host immune response to recombinant viruses derived from the chimeric adenovirus vectors are greatly reduced. The contribution of cellular receptors such as CAR (Coxsackievirus and adenovirus receptor) or integrin to viral infection is also studied. Methods of prepg. various chimeric adenovirus vectors and using them to treat diseases, preferably cardiovascular diseases are also provided.

RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2002 ACS
AN 1998:742261 CAPLUS
DN 130:17215
TI Gene transfer with adenoviruses having modified **fiber proteins**
IN McClelland, Alan; Stevenson, Susan C.; Gorziglia, Mario; Vanin, Elio F.
PA Genetic Therapy, Inc., USA
SO PCT Int. Appl., 79 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9850053	A1	19981112	WO 1998-US8570	19980430
	W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	AU 9872632	A1	19981127	AU 1998-72632	19980430
	AU 743051	B2	20020117		
	EP 1015005	A1	20000705	EP 1998-919957	19980430
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
PRAI	US 1997-852924	A2	19970508		
	WO 1998-US8570	W	19980430		

AB A method of transferring at least one DNA sequence into cells by transducing the cells, in vivo or ex vivo, with a modified adenovirus. The adenovirus, prior to modification, is of a first serotype. In the modified adenovirus, at least a portion of the fiber, and in particular the head portion, is removed from the adenovirus of the first serotype and replaced with a portion, in particular the head portion, of the fiber of an adenovirus of a second serotype. Such method is useful in transducing

cells which may be refractory to the adenovirus of the first serotype, yet include a receptor which binds to the head portion of the fiber of the adenovirus of the second serotype.

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

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